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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,720

08/08/2006

Paul G. Van De Veen

P29890

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04/01/2011

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Intellectual Property Department

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EXAMINER

SHARMA, YASHITA

ART UNIT

PAPER NUMBER

3774

NOTIFICATION DATE

DELIVERY MODE

04/01/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/595,720	<b>Applicant(s)</b> VAN DE VEEN ET AL.	
	<b>Examiner</b> YASHITA SHARMA	<b>Art Unit</b> 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 07 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-48 is/are pending in the application.
- 4a) Of the above claim(s) 15, 18-21, 24 and 25-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 16, 17, 22, 23 and 36-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/27/2010</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. This office action is responsive to the amendment filed on 06/07/2010. As directed by the amendment: claim 24 has been amended, claims 1-13 have been cancelled, claims 15, 18-21 and 24-34 have been withdrawn and new claims 35-48 have been added. Thus, claims 14, 16, 17, 22, 23 and 35-48 are presently pending in this application.

### **Response to Arguments**

2. Applicant's arguments with respect to claims 14, 16 17, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Henry et al. (5,904,721) have been fully considered but they are not persuasive. Applicants assert on page 15 of the response, "there is no device in Henry that would act as a lock. Simply, Henry provides no locking. Instead, the resistance device (piston 22) includes springs and air valves for dampening of the device, but none of these features are designed or configured to act as a locking mechanism... Also, the resistance device... is not designed to block a flexion of the articulation device in a flexed position within a definable angel range. Simply, Henry has no mechanism that would block flexion, much less allow the lower part to be freely pivotable in the flexion direction outside the definable angle range without action of the resistant device."

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3. Claim 14 as claimed discloses a prosthetic knee joint with an upper part, a lower part and a resistance device that needs to have the functionality of a lock since it just needs to be "configured to act as a lock." The lock is not part of the structure nor is a mechanism of a lock since the lock is not positively recited. The resistance device can act as a lock as long as it has positions where it can become stable at one position and can not move to another position. The resistance device or piston 22 is connected to a spring 31 which contributes to maintaining the stability of the assembly of piston 22 and rods 21 and 23 (col. 4, lin. 52-55). Therefore, the compression springs allows the piston the ability to act as a lock since the spring permits for the resistance device to become stable in two different rest positions.

4. Furthermore, the resistance device blocks a flexion of the articulation device 6 in a flexed position since when the piston or resistance device moves downwardly and gets stopped when it was reached maximum flexion, the articulation device can not flex or is blocked from flexion in the flexed position. The lower part is freely pivotable in the flexion direction because when the piston rod moves downwardly and the flexion begins and continues all the way until the piston has moved down and stopped any further flexion, the lower part 8 is still pivotable at the bearing 17 since the bearing connecting the lower part 8 and the lever between bearings 17 and 15 will continue to pivot about each other. Therefore, Henry teaches all the limitations of claim 14 and the arguments against Henry are not persuasive.

5. The valve 63 of Henry, as shown in Figs. 4A and 4B is disclosed as being inside the piston guided cylinder since the whole controllable valve system including the air duct and chambers 40 and 41 is placed in the tube or cylinder 4.

6. Rejection under 35 USC 112, second paragraph of claims 14 and 16 have been withdrawn.

7. With respect to applicants' arguments regarding incomplete office action, claim 24 was withdrawn from consideration. Applicant's response to the restriction requirement elected claims 14 and 16-23. In response to the election of these claims, the reconsideration of claims 1, 15, 24 and 25 was not considered persuasive and claim 24 was withdrawn.

### ***Drawings***

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "definable angle range" in claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 14, 16 17, 22, 23 and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Henry et al. (5,904,721) "Henry".**

10. Regarding claim 14, Henry discloses a prosthetic knee joint, comprising: an upper part 1 (Fig. 1A) having a fastening device 2 (Fig. 1A) adapted for a receptacle for a leg stump; a lower part 8 (Fig. 1A) pivotably connected to the upper part via an articulation device 28 (Fig. 1A); and a resistance device (piston, 22; Fig. 1A) having adjustable resistance (col. 4, lin. 46-55) and configured to act as a lock (the piston's upper and lower limits in the pneumatic cylinder allow for the adjustable resistance of

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the device; Fig. 1A) which, via a mechanical control device (rod, 21; Fig. 1A) and as a function of an angle, blocks a flexion of the articulation device in a flexed position within a definable angle range (col. 4, lin. 46-55), wherein the lower part 8 (Fig. 1A) is freely pivotable in the flexion direction outside the definable angle range without action of the resistance device (the lower part 8 will continue to be pivotable outside of the maximum flexion angle if the resistance device or piston 22 did not stop the flexion).

11. Regarding claim 16, Henry discloses the lower part 8 (Fig. 1A) is freely extended (the lower part 8 freely pivots about the upper part and the articulation device).

12. Regarding claim 17, Henry discloses the resistance device is configured to increase the resistance to the flexion to a locking action (the resistance device or piston 22 and compression spring 31 allow the stability of the flexion and locking when the piston is at it's flexed or the spring is at its compressed state), and the resistance device is configured such that it can be switched (valve 63 Figs. 4A and 4B; allows for the switching action of the resistance device because the opening and the closing of the valve allows for movement of air in different directions that provides extension and flexion of the system; claim 1).

13. Regarding claim 22, Henry discloses resistance device is a pneumatic unit (claim 1).

14. Regarding claim 23, Henry discloses the pneumatic unit has a controllable valve system 63 (Figs. 4A and 4B) which is arranged inside a piston 22 (Fig. 1A) guided in a cylinder (Fig. 1A) (claim 1).

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15. Regarding claim 35, Henry discloses the articulation device 28 is a rear articulation lever (Fig. 1A shows 28 as being a rear lever to the lower part 8).

16. Regarding claim 36, Henry discloses the upper part 1 (Fig. 1A) is articulated directly on a bearing bracket 30 (Fig. 1A), and a piston rod 21 of the resistance device 22 (Fig. 1A) is connected to a rear section of the upper part via the rear articulation lever (Fig. 1A shows articulation lever 28 being connected to the rear of the upper part 1 by bearing 30)

17. Regarding claim 37, Henry discloses the resistance device 22 is a piston assembly arranged within a cylindrical wall of the lower part 4 (piston 22 is located within the walls of tube 4; Fig. 1A), the piston assembly includes a controllable valve system (Fig. 4A shows a valve system connected to chambers 40 and 41 of tube 4) which is switched via a control rod 23 guided centrally in a piston rod 21 of the piston assembly 22 (Fig. 1A shows the piston rod 23 guided centrally in the piston rod 21 of the piston assembly 22).

### ***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. **Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henry et al. (5,904,721) "Henry" in view of Shorter et al. (5376137) "Shorter".**



20. Henry discloses the claimed invention as discussed above; except for the controllable valve system is centrally located inside the piston of the piston assembly, wherein switching is effected by valves of the controllable valve system loaded in an axial direction and wherein the controllable valve system includes a main valve arranged inside piston to permit an upward movement of the piston and piston rod at all times, and to prevent a downward movement of the piston.

However, Shorter teaches a similar invention comprising controllable valve system 40 (Fig. 1) centrally located inside the piston 38 of the piston assembly 32 (Fig. 1), wherein switching is effected by valves of the controllable valve system loaded in an axial direction (as shown in Fig. 1) and wherein the controllable valve system 40 includes a main valve arranged inside piston to permit an upward movement of the piston and piston rod at all times, and to prevent a downward movement of the piston (col. 5, lin. 37-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the valve system in Henry to be centrally located inside the piston of the piston assembly, wherein switching is effected by valves of the controllable valve system loaded in an axial direction and wherein the controllable valve system includes a main valve arranged inside piston to permit an upward movement of the piston and piston rod at all times, and to prevent a downward movement of the piston, as taught and suggested by Shorter, for the purpose of allowing a controlled and accurate flexion of the knee without requiring additional external parts.

***Allowable Subject Matter***

21. Claims 41-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YASHITA SHARMA whose telephone number is (571)270-5417. The examiner can normally be reached on Monday - Thursday, 8 am to 4 pm EST..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. S./

Examiner, Art Unit 3774

/Alvin J Stewart/

Primary Examiner, Art Unit 3774